

# Mimulus Memo



## *Of California and the Mediterranean: Rare and Adapted Ecosystems*

by Nancy Nies

JANUARY 2016

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### EVENTS

#### JANUARY

- 11-12 – Northern California  
Botanist Symposium  
CSU-Chico
- 21 – Chapter Potluck, 6 pm  
Program, 7 pm

#### FEBRUARY

- 18 – Chapter Meeting, 6 pm  
Program, 7 pm

#### MARCH

- 12 – Phytophthora Workshop,  
Long Beach
- 12 – Field Trip
- 17 – Chapter Meeting, 6 pm  
Program, 7 pm

#### APRIL

- 16 – Field Trip
- 21 – Chapter Meeting, 6 pm  
Program, 7 pm

WHEN PAUL AND I SIGNED UP FOR A “FOLK-DANCE CRUISE” on the Mediterranean in September 2015, we expected to see stunning scenery, to dance on board the ship and to watch local folk dancers perform in various ports of call in Italy and France — and we were not disappointed. We did not, however, expect the added bonus of hearing an informative talk on the climate and vegetation shared by California and the Mediterranean region. The speaker was **Wayne Engstrom**, Professor Emeritus of Geography at Cal State Fullerton. For those who, like us, might need a primer or refresher on the subject, here are the highlights.

Engstrom first explained how rare Mediterranean ecosystems are, existing on only 2% of the Earth. Sixty percent of those are found in the Mediterranean basin, and the rest on the west coasts of continents in the lower middle latitudes, in Chile, South Africa, Australia, and of course California. Three of the five regions — the Mediterranean basin, central Chile, and central and southern California — have similar landscapes, all being mountainous. They also have similar vegetation. In areas with a Mediterranean climate, summers are hot, with high pressure bringing dry conditions, and winters are wet, due to the arrival of storms brought in by westerlies.

In order to survive hot, dry summers, natural vegetation in Mediterranean ecosystems has adapted to drought, and Engstrom described various adaptations. To reduce water loss, many shrubs are **sclerophyllous** (“hard-leaved”), meaning that they have developed thick, leathery leaves. Others have adapted with light-colored leaves to reflect the sun’s rays, or



Reservoir, village, maquis - Corsica, Sept. 2015

Photo: Nancy Nies



## California and the Mediterranean (Continued)

Photo: Nancy Nies



Oleander (*Nerium oleander* - cultivar?), Sicily, Sept. 2015

with extensive root systems to keep leaves green even in drought conditions. Perennial plants, geophytes, store their nourishment in an underground bulb, tuber, corm or rhizome, while annuals evade drought conditions entirely, by going to seed early and then dying. Other survival techniques include developing resistance to fire, as well as to herbivores.

Engstrom then explained the difference between two terms used to describe landscapes in the Mediterranean region, and gave examples of plants found in each. The term **maquis**, he said, refers to continuous, dense coverage provided by tall, sclerophyllous shrubs and low trees. These include Kermes oak (*Quercus coccifera*), strawberry tree (*Arbutus unedo*), Judas tree (*Cercis siliquastrum*), dwarf fan palm (*Chamaerops humilis*), Cretan palm (*Phoenix theophrasti*), sage-leaved cistus (*Cistus salvifolius*), and oleander (*Nerium oleander*). The term **garrigue**, said Engstrom, indicates discontinuous coverage — in hotter, drier areas — provided by low shrubs such as Greek spiny spurge (*Euphorbia acanthamnos*), rosemary (*Rosmarinus officinalis*), red tulip (*Tulipa doerfleri*), and Italian man orchid (*Orchis italica*). Wetter, cooler areas may have an oak-conifer woodland including cork oak (*Quercus suber*), Aleppo pine (*Pinus halepensis*), cedar of Lebanon (*Cedrus libani*), and Italian cypress (*Cupressus sempervirens*).

The California equivalent of maquis - garrigue—which we call chaparral—also relies upon a foundation of sclerophyllous shrubs and plants with drought-resistant character-

istics such as those found in Mediterranean plants. Engstrom also pointed out that agriculture in the Mediterranean basin has traditionally depended upon plants native to the region (or nearby) and adapted to the Mediterranean climate, including grapes, olives, pistachios, and almonds—all of which sound familiar to those of us living here in California's San Joaquin Valley. Also, Engstrom noted that Californians visiting the Mediterranean region feel at home not only because of the similar landscape, but also because of the familiar plants grown as ornamentals—Mediterranean natives such as oleander and dwarf fan palm, and non-natives like lantana and bougainvillea.

You never know when you'll get a lesson in native plants—maybe even on a cruise ship! ❀

## Thank you to:

**Fred Chynoweth** and **Dorie Giragosian** for refreshments at October's meeting.

**Diana Nelson, Monica Tudor** and **Donna Rodriguez** for refreshments at our well-attended November program

**Travis Columbus** for speaking on native grasses at our November meeting. It was very educational for most of us, who know little about the grasses.

**Monica, Dorie, Dinah** and several members who volunteered at our native plant sale in October at Cal State University. It was very successful and we sold out of the entire stock by mid-morning!

**Lucy, Monica, Rob, Diana** and others for the very popular "Ditch Your Lawn Workshop" in early November. Over 40 people attended and a great deal of information was exchanged on conserving water with our landscape planning.

**Paul Gipe**, as always, for keeping us on track at meetings, and for facilitating communication between members.

**Andy Honig** for maintaining the membership list and sending out meeting and field trip notices. ❀



## President's Message

### The Forgotten Elderberries of Kern County

by Richard Spjut

ELDERBERRY, OR SIMPLY ELDER, IS A COMMON name for the genus *Sambucus* in the family *Adoxaceae*. Technically, the fruit is not a berry but a drupe — generally defined by the inner layer of the ovary



Fig. 1. Fruits of red elder (*Sambucus microbotrys*) with 3 pyrenes visible through the outer transparent layer in a dried herbarium specimen, J. F. Smith (Consortium of the Pacific Northwest Herbaria).

forming a hard protective layer (**endocarp**) around the seed, such as exemplified by the stone in the peach, in contrast to that of a berry, such as an avocado with only one seed without the external stony layer. The

elder drupe further differs in its development from a 3–5 locular ovary that, at maturity, separates along loculed margins into 3–5 pyrenes, each pyrene with one seed.

The name “elder” may have its origin in Anglo-Saxon mythology, possibly relating to an ancient vegetation Goddess known as “Hylde Moer”, or to other historical names like “Hyllantree”, or “Aeld”, which means fire. Elders were sacred and were not to be harmed, except when one needed to take parts from them for medicinal use. It has been reported that Judas hanged himself from an elder; however, elder is not native to Palestine, although it could have been cultivated there. Archeological sites elsewhere have elder pyrenes that date to 2500 BC and before. However, the “Judas tree” is generally considered a species of red-bud (*Cercis siliquastrum*). Elders contain cyanogenic glucosides that are poisonous to humans when consumed fresh.

Ernest Twisselmann, in A Flora of Kern County, California (1967), reported two species in the genus *Sambucus*, — *S. cerulea* (blue elder) and *S. mexicana* (Mexican elder) — where the **Jepson Manual** recog-



Fig. 2A-B: Comparison of portion of herbarium specimen collected in Idaho, Pamela Brunsfeld et al. — **A** (left): identified *Sambucus racemosa* var. *melanocarpa* (Consortium of the Pacific Northwest Herbaria) with the illustration in Munz & Keck, A California Flora. — **B** (right): misidentified *S. mexicana*, where in that flora it keys to *S. melanocarpa*. The epithet “*melanocarpa*” is in regard to the black color of the fruit.

nizes only one — *S. nigra* L. subsp. *caerulea* Bolli (**Dis-sertationes botanicae**, 1994). However, I distinguish the blue elder as a species from the European black elder (*S. nigra*), and from two others in Kern County — *S. fimbriata* and *S. velutina* — names that have mostly been relegated to synonymy since the early 20th century. Herein they will be given reconsideration.

First, it may be noted that the blue elder, *Sambucus cerulea*, was discovered Dec. 1, 1805, on the Lewis and Clark Expedition in the mountains of Oregon near Fort Clatsop. It was named and briefly described by **Constantine S. Rafinesque-Schmaltz** in 1838 (**Also-graphia Americana**). It should be noted that “*caerulea*” and “*coerulea*” are alternate spellings. The International Code of Nomenclature Article 60.1 states: “The original spelling of a species is to be retained, except for the correction of typographical or orthographical



Fig. 3A-B Close-up of type specimen (A) and leaf portion (B) for *Sambucus velutina* collected by A. L. Heermann from Poso Creek in Kern County, August 1853. Note velvety hairs.

errors” ... example, “‘*Scirpus cespitosus* L.’ (1753) is not to be altered to ‘*S. caespitosus*’”; therefore, *Sambucus cerulea* (original spelling) is not to be altered to *S. caerulea*. The difference between *S. cerulea* and *S. nigra* is like the difference between day and night, the drupes



## Message (Continued)

“sky blue” vs. “black”. Molecular data further support their distinction as species (Eriksson & Donoghue, Systematic Botany, 1997).



**Figs. 4A-C:** **A** (lower left): Close-up of leaflet of type specimen for *Sambucus fimbriata* collected in the Grapevine Canyon in 1901, showing dichotomous venation near margin, in comparison to reticulate venation in another type specimen (**B**) for *S. orbiculata*; **B & C** (top left and right) collected in the Santa Lucia Mts. in 1898, both described by Edward Greene in 1910 (U.S. National Herbarium, Smithsonian Institution).

Twisselmann evidently recognized *Sambucus mexicana* based on the species key in A California Flora by Munz & Keck (1959), not their misidentified or mislabeled illustration of *S. mexicana*. In their flora, this keys to *S. melanocarpa*, which is not known from Kern County.

Another problem is that *S. mexicana* was originally described as having black, not blue, drupes, and their arrangement in the inflorescence being more distinctly like the spokes of an umbrella (umbel). These are characteristics of *S. canadensis*. **Richard Bolli** considered the Mexican elder the same (synonymous) with that of the Canadian elder, although I distinguish them from one another. Therefore, one might ask what is the name for the Kern County elder that is not *S. cerulea* or *S. mexicana*?

It so happens that long ago, in August 1853, **A. L. Heermann** collected an elder in Kern County that **Elias Durand** and **Theodore Hilgard** named *S. velutina* in Plantae Heermanniae, 1854 — the epithet chosen for the velvety hairs on the plant. Indeed, the type specimen is the furriest elder I have seen. **Leroy Abrams**, who had recognized velvet elder in 1910 (Bulletin NY Botanical Garden), further noted with **Roxanna Ferris** in the Illustrated Flora of the Pacific States (1960) that it was first discovered along Posé [Poso] Creek, 7 miles north of the Kern River in a flat along a stream in the lower foothills where the vegetation contrasted with the “barren and parched hills which were without trees or any green vegetation.” “This velvety tomentose leaf form of *S. mexicana* [*S. velutina*] occurs rather commonly in the San Joaquin Valley, California, and is not to be confused with the tomentose leaf forms of *S. caerulea* [sic] found at the higher elevations in the Sierra Nevada.”

Another species of elder was also discovered in Kern County, *Sambucus fimbriata*, named and described by **Edward Greene** in 1910 (Leaflets of Botanical Observation and Criticism). It was reportedly collected by **Frederick Coville** and **Frederick Funston** during their Death Valley Expedition on 5 July 1901 from the “Cañada de las Uvas” at 2,700 feet in the mountains of Kern County; the name for the Grapevine Canyon Route given by **Lieutenant Pedro Fages** because of the wild grape vines he saw growing there, after crossing the Old Tejon Pass in pursuit of military deserters in 1772 (Wikipedia). *Sambucus fimbriata* is distinctive for its round glabrous leaflets with open venation near the leaf margin, in contrast to reticulate venation in another

round leaflet species described by Greene, *S. orbiculata*. The name, *S. mexicana*, has been misapplied to both species. The genus *Sambucus* includes anywhere from 9 to 30 species. Keys and descriptions with references are provided on the Sambucus web page for the Trees and Shrubs of Kern County, <http://www.worldbotanical.com/sambucus.htm> ❀



**Fig. 5.** Grapevine Canyon in 1868, plate 106 from **Alexander Gardner** (Wikipedia). Type locality for *Sambucus fimbriata* collected in 1901.



## Adding to the Family: New Plants and New Places

by Monica Tudor

**T**HANK YOU TO EVERYONE WHO CAME TO the Native Plant Sale on October 24!

The native plant sale was so successful that all the plants were sold out by 10:00 a.m., and I didn't even get to buy any plants for my own garden. I had my eye on several beautiful native plants, including a chuparosa, some penstemons and some California fuchsias, all very hummingbird-friendly. The chuparosa was planted in the cactus garden at Cal State and the others went home to other gardens.

I had no option but to make a trip to **Las Pilitas Nursery** in Santa Margarita to get some plants for my own garden. Las Pilitas is one of the native plant nurseries used by the Kern County chapter of CNPS as a source for its annual plant sales. Las Pilitas Nursery has an extensive website, [www.laspilitas.com](http://www.laspilitas.com), packed with hundreds of plant profiles and all kinds of useful information for folks interested in native plants. Anyway, it wasn't too hard to convince my husband that we should make the drive, so off we went.

At Las Pilitas, we already knew most of the plants we wanted and the staff at the nursery confirmed that our selections were definitely suited to Bakersfield's climate: bladderpod, creosote bush, blue witch and desert mallow. We did pick up some penstemons and California fuchsias to plant in areas with high shade. All the plants were one-gallon size — easier to pack in the car!

Once home, I began setting out the plants. (The placement part of the planning should have happened first, but I had a pretty good idea of what should go where.) Plants with similar water needs were grouped together before they were even placed in the garden. Then, within each group, the taller ones went in the back of their section of the garden and the shorter ones in the front, per usual garden-design conventions. I also "repaired" a design error from the earlier years, where the plants were not properly grouped by water needs and a high-water-need buttonwillow tree was put behind a low-water-need desert mallow. This meant I had to separately water the buttonwillow tree, but avoid watering the desert mallow. Not a good thing. So the buttonwillow was moved to another section and a creosote bush was put in its place. Now everybody's happy!

Just to explain the preparations involved, here's a

little of what happened. That section of garden in the previous year was only OK. The desert mallows, milkweed and *Baileya multiradiata* grew, while salvias and Matilija poppies croaked in the heat of the summer. I should have known conditions were less than ideal when they were planted in the first place, because the ground was very compacted and there was a two-inch layer of aged manure about a foot below the surface. (Remember, it used to be a horse pen.) When I pulled up the dead plants, the roots never went through the manure layer. In addition, the water didn't percolate through the compacted dirt. To remedy the situation, I dug giant holes where the natives would go the next fall. I dug down to the river sand about three feet below the surface, breaking up the compacted soil during the process. Then the holes were filled with the original soil, but now the previously compacted soil was mixed with the river sand and the texture was much improved. In addition, because of the soil preparation, the water actually percolates down instead of sitting on top of the soil. Disclaimer: This is what worked for my garden's unique issues. Digging up perfectly good dirt is not recommended because it disturbs the mycorrhiza.

I'll keep you posted as the garden grows! ☼



Photos: Monica Tudor



Ready for planting — Fuchsia, sages, creosote bush, bladderpod, desert mallow, *Encelia farinosa*, blue witch, *Senna covesii*, etc.



*Chapter Meetings***upcoming TOPICS**

**Thursday, January 21, 2016 - 6 pm:**  
**Annual Potluck**

**7 pm: Dinah & David Campbell**  
 Isle Royale National Park

**Thursday, February 18, 2016 7 pm:**  
**David Gordon, Garden Design**

**Thursday, March 17, 2016 - 7 pm:**  
**Denis Kearns, Botany in Ireland**

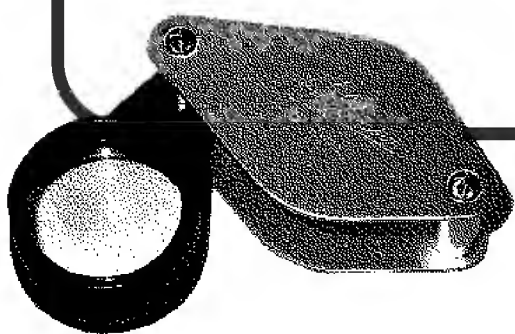
**Thursday, April 21, 2016 - 7 pm:**  
**Richard Spjut, Botanical Wonder-**  
**land: Baja California, Mexico**

All chapter meetings are held the  
 3rd Thursday of each month at the  
 Hall Ambulance Community Room  
 1031 21st Street (21st & N St.), Ba-  
 kersfield, CA.

Meeting times:

6 pm — Discussion groups on plant  
 identification and native plant  
 gardening

7 pm — Program presentation



CNPS is the leader for providing reliable information on California native plants and plant conservation. Comprehensive information about California's flora and vegetation communities is available throughout the state for conservation and educational purposes. CNPS's leadership influences personal ethics and actions, as well as public policy for native plant protection.

**FIELD TRIPS**

*by Clyde Golden and Patty Gradek*

**K**ERN CNPS FIELD TRIPS ARE OPEN TO ALL. Occasionally, numbers will be limited by the land owners or agencies. We welcome you to join us to see and learn about our native plants and their habitats, to learn to identify plants, or to photograph them. If you are skilled in plant identification, you can help us all learn.

Please always dress in layers, wear boots or shoes you can hike in, and bring food and water. You may also want to bring a hat, sunscreen, binoculars, camera, plant lists and useful references such as Kern County Flora and the Jepson Manual, or any book you like. We try to meet at a spot where we can park some cars and carpool to our location to save the air, the gas, the money and make sure that we will have adequate space to park. CNPS does not arrange car pools; each person does so at the meeting place. If you ride with another driver, please remember to offer to help pay for gas.

All trips are by reservation only, so we know whom to expect, and how many will be attending each field trip. Each trip will have the contact person listed. Please email the contact person by four days before the field trip and indicate the names of those who will attend. Please also provide a cell phone number if we need to reach you that day and indicate whether you will be driving a four-wheel drive, AWD or high-clearance vehicle. We may need to limit participation for some trips if we don't have an adequate number of four-wheel drive, AWD or high-clearance vehicles for all the participants.

**IMPORTANT: If your plans or your party's plans change and you will not be attending, it is critical for safety, planning and courtesy reasons – that you call or email the contact person and let them know you will not be there.**



Valley Oaks (*Quercus lobata*) — Tejon Ranch

Photo: Dinah Campbell



**March 12, Saturday**

VALLEY FRINGE PORTION OF TEJON RANCH  
with **Mike White**

Contact: **Patty Gradek** – [pattygradek@gmail.com](mailto:pattygradek@gmail.com)  
RSVP Deadline: **8 pm, Tuesday, March 8**

**Mike White**, Tejon Conservancy's Conservation Science Director, will be leading us on an early spring field trip through some of the parts of the Ranch that border the Valley. The Tejon Ranch is a beautiful place in the spring and we're hoping for great displays in these lower elevations. Plan on this being a full-day trip. The meeting place and time will be determined later so we can see the best displays. Those who RSVP will be given the meeting place and directions and the time we will meet. Pets and smoking are not allowed on the Tejon Ranch. You may want to bring the Tejon Ranch Plant List available on our chapter web site: [kern.cnps.org](http://kern.cnps.org), as well as other references that are appropriate. If you have a four-wheel drive or an AWD, please drive it. Some areas require access by four-wheel drive. The Conservancy has informed us the field trip will be limited to 30 participants.

**April 16, Saturday**

CARRIZO PLAIN NATIONAL MONUMENT  
with **Denis Kearns**

Contact: **Patty Gradek** – [pattygradek@gmail.com](mailto:pattygradek@gmail.com)  
RSVP Deadline: **8 pm, Tuesday April 12**

**Denis Kearns**, BLM Botanist, will lead us on a trip to this very magical and beautiful place. Denis may have us help evaluate past restoration efforts on the monument. The trip will be limited to 20 people, due to limits prescribed for such tours in the BLM Management Plan. Therefore, if you want to attend, we suggest you contact **Patty Gradek** at [pattygradek@gmail.com](mailto:pattygradek@gmail.com) early, because no more than 20 will be allowed to participate.

Please meet at the parking lot of the BLM office at 3801 Pegasus Drive at 8:30 am for carpooling. If you have a four-wheel drive or AWD, please drive it so we can access some of the special areas. We will leave promptly at 8:45 am and this will be a full-day field trip. There are restrooms at the Visitor Center at Carrizo.



Photo: Dinah Campbell

Desert candle (*Caulanthus inflatus*) and fiddle-neck (*Amsinckia* sp.) — photo taken on Carrizo Plain trip in 2014



Photo: U.S. FWS

**April 23, Saturday**

BITTER CREEK NATIONAL WILDLIFE REFUGE  
with **Pam DeVries**

Contact: **Patty Gradek** – [pattygradek@gmail.com](mailto:pattygradek@gmail.com)  
RSVP Deadline: **8 pm, Tuesday, April 19**

The **Bitter Creek National Wildlife Refuge** is a very special place and it's open to the public only by permit from the US Fish and Wildlife Service. **Pam DeVries**, professional botanist, helped us to obtain the permit to enter the refuge for this field trip. The permit limits the trip to 20 people. Therefore, if you want to attend, we suggest you contact Patty Gradek at [pattygradek@gmail.com](mailto:pattygradek@gmail.com) early, because no more than 20 people will be allowed to participate.

The Bitter Creek National Wildlife Refuge protects the habitat of a variety of animals and plants, including the California condor, golden eagle, prairie falcon and the San Joaquin kit fox. The refuge also contains rare plant species such as *Eremalche parryi subsp. kernensis*. Our botanical walk of approximately one mile will take place in an area selected by Pam DeVries and approved by the Fish and Wildlife Service.

Meet at the "Park and Ride" at the corner of Real Road and Stockdale Highway at 7:30 am to form car-pools. We will leave promptly at 7:40 and will arrive at the refuge by 9:00 am. Refuge staff will meet us at the refuge headquarters and will give us a brief talk on the refuge and their current monitoring efforts prior to starting our walk. This will be a full-day field trip and there are restrooms at the refuge headquarters.

**May 1, Sunday**

NATURE CONSERVANCY PROPERTIES  
with **Zach Principe**

Contact: **Clyde Golden** – [cgold666@hotmail.com](mailto:cgold666@hotmail.com)  
RSVP Deadline: **8 p.m. Tuesday, April 26 2016**

A joint field trip with **Kern Audubon Society** and **Sierra Club**. Let's hope the birders don't frighten the flowers. A return to one of the Caliente ranches owned by the Nature Conservancy, the exact location will be determined closer to the date, depending on the state of the bloom and condition of the roads. High clearance vehicles recommended and carpooling will be essential. Restrooms are not available after

leaving town. Exact meeting time to be determined for this all-day trip.

### May 21, Saturday

HIGHER ELEVATION PORTIONS  
OF TEJON RANCH

with **Mike White**

Contact: **Patty Gradek** – [pattygradek@gmail.com](mailto:pattygradek@gmail.com)

RSVP Deadline: **8 pm, Tuesday, May 17**

**Mike White**, Tejon Conservancy's Conservation Science Director, will be leading us on a field trip to the higher elevations of Tejon Ranch. Plan on this being a full-day trip. The meeting place and time will be determined later. Those who RSVP will be given the meeting place and directions and time we will meet. Pets and smoking are not allowed on the Tejon Ranch.

You may want to bring the Tejon Ranch plant list available on our chapter web site: [kern.cnps.org](http://kern.cnps.org), as well as any other references that are appropriate. If you have a four-wheel drive or AWD, please plan to drive it. We have to inform the Conservancy of the numbers that will be attending and they will limit the field trip to 30 participants.



### Special Note!

Keep your eyes open for other field trips that may be planned on short notice. If additional trips are planned, they will be advertised in emails from **Andy Honig**. ♡

### HELP WANTED:

A modestly internet-savvy volunteer is needed to help with our Meetup page.

We've lost our previous capable meetup organizer, **Heather Ellison**, due to a work-related move. If you have the interest please contact **Rich Spjut** at [rich-spjut@gmail.com](mailto:rich-spjut@gmail.com) or **Paul Gipe** at [pgipe@igc.org](mailto:pgipe@igc.org).



## LEARNING OPPORTUNITIES

**Symposium:** The Northern California Botanists Symposium — *Plant Adaptations: Research, Conservation, and Management*

**Dates:** January 11-12, 2016

**Location:** CSU-Chico at Bell Memorial Union on the Chico State campus.

**Keynote Speaker:** **Dr. Susan Harrison**, University of California Davis, *Climate Change and the Future of Diversity in California Plant Communities*

The 2016 Symposium will attract hundreds of pro-

fessional botanists, scholars, plant biologists, and students who will participate in a full schedule of peer-led sessions, poster presentations, and networking opportunities.

With more than 30 presenters session topics include: plant genetics, locally-rare plants, climate change, restoration, evolutionary processes, conservation successes, and new botanical discoveries, all emphasizing the northern part of California.

### Three post-conference workshops:

**Wednesday, January 13, 2016**

- rare moss identification,
- exotic *Phytophthora* entering native landscapes
- making herbarium-quality plant specimens.

**Botany students** can apply for an academic stipend to help defray the cost of the symposium.

**Registration and information:** Northern California Botanists Symposium website at:

[www.norcalbotanists.org](http://www.norcalbotanists.org)

or call **Gail Kuenster** at (530) 570-5196.

### Workshop: *Phytophthoras & CNPS Native Plant Sales*

**Date:** March 12, 2016 (Saturday)\*

**Location:** San Pedro, CA \*

**Presenters:** **Melanie Cross**, Nursery Manager Santa Clara Valley CNPS; **Susan Frankel**, Plant Pathologist U.S. Forest Service; **Kathy Kosta**, Plant Pathologist California Department of FA, **Deanna Giuliano**, Nursery Director/Consultant Acterra Native Plant Nursery and **Tim Miles**, Asst. Prof. Plant Pathology CSU-Monterey Bay

**Focus:** The half-day workshop will provide information on *Phytophthora* pathogens, the risks associated with infested plant stock, and how clean nursery practices can reduce these risks. The workshop's objective is to help chapters reduce the risk of selling infested plant stock to plant sale customers.

**Price:** FREE but advance registration is required.

\* Check CNPS Chapter Council website for updated information on specific location, times and how to register. [www.cnps.org/cnps/admin/cc/](http://www.cnps.org/cnps/admin/cc/)

### Workshop: *Grass Identification*

**Dates and Times:** 8:30am - 5:00pm ;

**April 30 (Saturday) and**

**May 1, 2016 (Sunday)**



**Presenter: Travis Columbus**

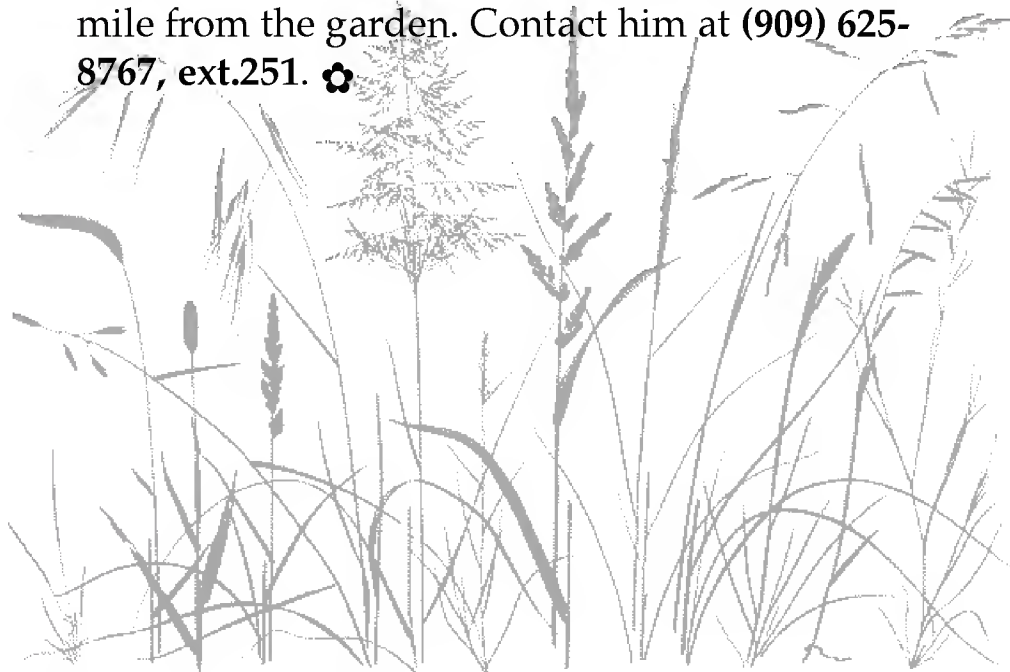
(two days, field trip to the Santa Rosa Plateau)

**Price:** \$300 general;

\$250 RSABG or SCB member

**Location:** Rancho Santa Ana Botanic Garden,  
Lenz Horticulture Classroom**Other information:** Coffee and snacks will be provided but lunch will not. Please wear weather-appropriate clothing/shoes for light hiking on Sunday.

If you will be coming in from out of town and need a hotel, **Bryce Kunzel**, workshop coordinator at RSABG can arrange for you to receive a corporate rate at the Doubletree Claremont Hotel, less than a mile from the garden. Contact him at (909) 625-8767, ext.251. ☘



## **Growing Natives: Propagating for Kern County**

*by Lucy Clark*

**I**F YOU ARE INTERESTED IN LEARNING HOW to grow Kern native plants, with an eye to helping us increase the number of Kern natives in our future plant sales, please contact **Lucy Clark** at [lucyg391@gmail.com](mailto:lucyg391@gmail.com).

This idea came about after our *Ditch Your Lawn Workshop*, as we looked for plants appropriate to our urban San Joaquin Valley areas. Several of us are interested in growing a species at home, or perhaps adding to the nursery at the *Panorama Vista Preserve*, or sending collected seeds to various native plant nurseries to grow for us.



There is so much to be learned about seed-collecting and storing, and slip-propagating! Please let us know if you have any skills you have acquired that you could teach us, or if you are interested in attending a workshop in March about protecting against a plant fungus. Everybody is welcome, just let Lucy know! ☘



## **Field Trip Report Bittercreek National Wildlife Refuge**

*by Monica Tudor*

**W**E ARRIVED AT THE BITTER CREEK National Wildlife Refuge November 20th, after short drive from Bakersfield on a beautiful, sunny Saturday morning. We were given an introduction to the team (whose names I have forgotten, sorry) and to the condor program and had our questions answered. After that we jumped back in our cars and followed our guide on dirt roads up and down hills to the viewing area.

At the viewing site we saw about seven or eight condors perched on the slopes of the hills in groups of two or three, sunning themselves. As the temperature got a little warmer, we saw them take off, gliding on the currents, eventually landing on the slopes again.

We learned that the program uses older “mentor” birds to teach the newly-released birds how to act like a condor. When the condors are initially released, they are fed carcasses to insure they have enough to eat. The young birds have not learned how to soar, and can sometimes be distinguished by their less efficient flying technique. The human crew catches the birds twice a year and conducts health checks on each bird. They are very sensitive to lead and sometimes have to undergo treatment for lead poisoning.

Knowing that these huge birds are recovering from extinction made me delighted to watch them soar. ☘

*Photos: Monica Tudor*

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*The California Native Plant Society is a non-profit organization dedicated to the conservation of California native plants and their natural habitats, and to increasing the understanding, appreciation, and horticultural use of native plants. CNPS has 31 chapters throughout the state and membership is open to all persons — professional and amateur with an interest in California's native plants. Members have diverse interests including natural history, botany, ecology, conservation, photography, drawing, hiking and gardening. As a Kern County resident, your membership includes Freemontia, a quarterly journal with articles on all aspects of native plants; the Bulletin, a statewide report of activities and schedules; and The Mimulus Memo, the newsletter of the Kern Chapter.*

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